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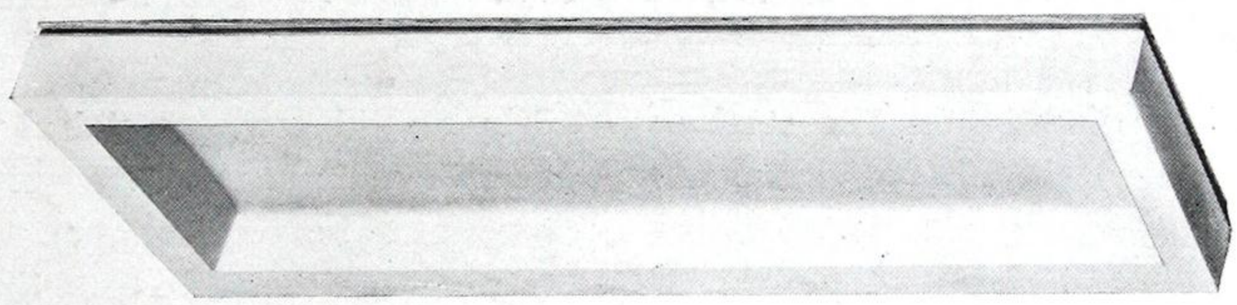
PYROBAR REINFORCED

PATENTED

LONG SPAN
GYPSUM ROOF TILE

Lengths 4 to 10 Feet

Tile span from truss to truss or from purlin to purlin



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Low Cost - *Light Weight* - *Quickly Erected*
Heat Insulating - *Condensation Minimizing* - *Fireproof*

PYROBAR ROOF TILE are made of STRUCTOLITE, a specially prepared gypsum in which is combined the properties of great strength with light weight.

The tile are reinforced with steel and designed to carry a safe load of 50 lbs. per sq. ft.

Gypsum (Structolite) has a lower heat conductivity than any other building material used for structural purposes.

UNITED STATES GYPSUM COMPANY

"World's Largest Producers of Gypsum Products"

205 WEST MONROE STREET, CHICAGO, ILL.

NEW YORK BUFFALO BOSTON PHILADELPHIA WASHINGTON CLEVELAND DETROIT PITTSBURGH
MILWAUKEE MINNEAPOLIS KANSAS CITY ST. LOUIS CINCINNATI DENVER OMAHA LOS ANGELES

Pyrobar Roof Tile spanning from truss to truss

Pyrobar Roof Tile spanning from purlin to purlin

Pyrobar Gypsum Long Span Roof Tile

These tile are laid directly on the steel or wood roof framing, the joints between the tile being filled with gypsum grout, which forms practically a monolithic deck. Any type of roof covering can be immediately applied.

PYROBAR ROOF TILE are low in cost. Because of their light weight, they effect a saving in supporting steel.

PYROBAR TILE are easily erected. They can be cut to suit any condition of framing. The large, light weight units are quickly placed. Being unaffected by frost or freezing, the tile can be laid in coldest weather without loss of time.

PYROBAR TILE are superior insulators of heat, preventing condensation, or drip, under the most adverse conditions. They stop heat losses in winter, permitting large savings in first cost and maintenance of heating systems. Compared to a 3-inch solid concrete slab, Pyrobar will save 27 tons of coal per year and will reduce the required amount of heating equipment by 920 square feet of radiation (equal to 2130 lineal feet of 1¼-inch pipe) for each 10,000 square feet of roof area.

PYROBAR ROOF TILE are permanent. They are not affected by the deteriorating action of acids or gas fumes often found in manufacturing plants, railroad buildings, etc.

Their white under-surface reflects light to all parts of the building, assisting in the solution of the lighting problem.

PYROBAR IS ADAPTED TO ANY TYPE OF ROOF COVERING. Where slate, baked clay, Ludowici or Spanish tile are required, an extra dense nailing tile can be furnished, thus eliminating the use of fill or nailing strips, such as required where concrete is used.

Placing Pyrobar Roof Tile on General Motors Company's Building

Roof showing sawtooth end walls and curbs made of Pyrobar Tile

ENGINEERING SERVICE Our Engineering Department will gladly render valuable advice on design and construction of roofs. Consultation without obligation. Comparative estimates will be furnished on request. We contract for the erection of Pyrobar.

SPECIFICATIONS FOR PYROBAR REINFORCED LONG SPAN ROOF TILE

All roofs, as shown on plans, unless otherwise noted, shall be constructed of Pyrobar Long Span Reinforced Gypsum Roof Tile (with or without Lap Joint), manufactured by the United States Gypsum Company. The tile shall be placed directly upon roof supports without mortar and with sides tight together. All "grouting joints" of the tile shall be filled with gypsum grout, composed of one part unfibred gypsum cement plaster and three parts of clean, sharp sand.

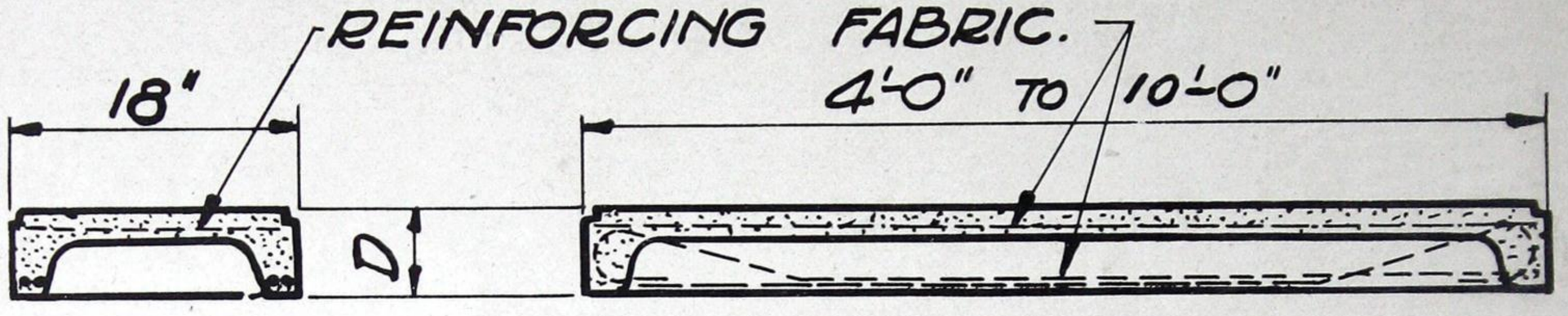
Curbs under Monitor or Sawtooth Sash, also the end walls of Monitors or Sawteeth, shall be constructed of 3-inch solid Pyrobar Tile set in gypsum cement mortar, the joints being well bedded and struck.

Note: Where it is desired to nail roof coverings directly to the roof deck, the above specifications should read "to be constructed of Pyrobar Long Span Reinforced Gypsum Roof Tile with Extra Thick Nailing Deck."

Cut nails or barbed slater's nails shall be used to fasten roof covering, and nails shall have at least 1½-inch penetration into the gypsum tile.

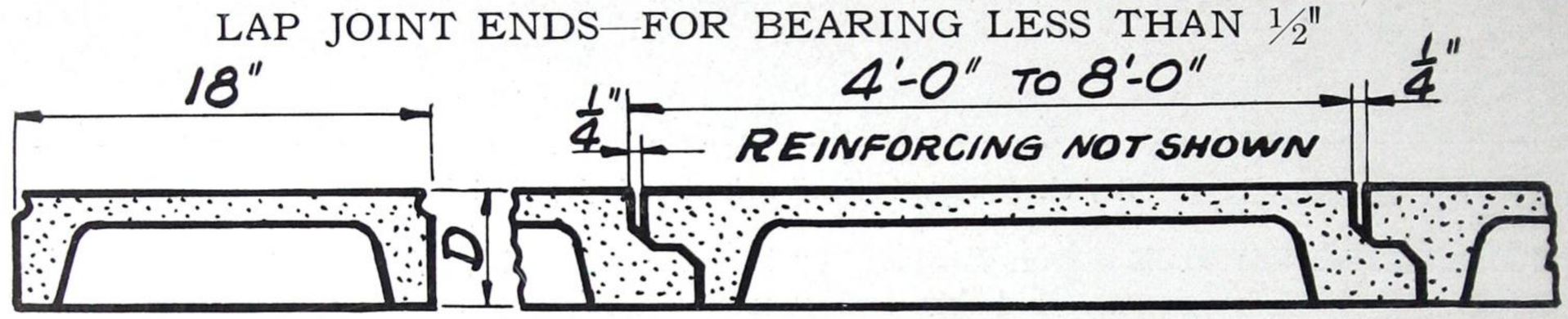
Roof deck showing drainage fill, consisting of gypsum with a small percentage of planer chips.

DATA REQUIRED FOR DESIGNING



Span	4′—0″	5′—0″	6′—0″	7′—0″	8′—0″	9′—0″	10′—0″
Depth "d" (see note)	5″	5″	5″	6″	6″	7″	7″
Weight, lbs. sq. ft	16½	16½	16½	18½	18½	20.0	20.0

LAP JOINT ENDS—FOR BEARING LESS THAN ½"



Span	5′–0″ to 6′–3″	6′–0″ to 7′–0″	7′–0″ to 8′–3″
Depth "d" (see note)	5″	6″	6″
Weight, lbs. sq. ft	16	19	18.5

Note: In general, all tile on one continuous roof to be of depth required for maximum span.

PURLIN TABLE FOR LONG SPAN ROOF TILE

PURLIN SPAN - FT.			8		10		12		14		16		18		20		22		24	
SHAPE			I	C	I	C	I	C	I	C	I	C	I	C	I	C	I	C	I	C
SLAB SPAN - FEET.	4	DEPTH - INS.	3	4	4	4	4	5	5	6	5	7	6	7	7	8	7	9	8	10
		WGT. PER FT.-LB.	5½	5¼	7½	5¼	7½	6½	9¾	8	9¾	9¾	12¼	9¾	15	11¼	15	13¼	18	15
	5	DEPTH - INS.	3	4	4	5	5	6	5	7	6	7	7	8	7	9	8	10	8	10
		WGT. PER FT.-LB.	5½	5¼	7½	6½	9¾	8	9¾	9¾	12¼	9¾	15	11¼	15	13¼	18	15	18	15
	6	DEPTH - INS.	4	4	4	5	5	6	6	7	6	8	7	9	8	10	8	10	9	12
		WGT. PER FT.-LB.	7½	5¼	7½	6½	9¾	8	12¼	9¾	12¼	11¼	15	13¼	18	15	18	15	21	20½
	7	DEPTH - INS.	4	5	5	6	5	7	6	8	7	9	8	9	8	10	9	12	9	12
		WGT. PER FT.-LB.	7½	6½	9¾	8	9¾	9¾	12¼	11¼	15	13¼	18	13¼	18	15	21	20½	21	20½
	8	DEPTH - INS.	4	5	5	6	6	7	6	8	7	9	8	10	9	12	9	12	10	12
		WGT. PER FT.-LB.	7½	6½	9¾	8	12¼	9¾	12¼	11¼	15	13¼	18	15	21	20½	21	20½	22	20½
	9	DEPTH - INS.	4	5	5	6	6	7	7	9	8	10	8	12	9	12	10	12	10	12
		WGT. PER FT.-LB.	7½	6½	9¾	8	12¼	9¾	15	13¼	18	15	18	20½	21	20½	22	20½	25	25
	10	DEPTH - INS.	4	5	5	7	6	8	7	9	8	10	9	12	9	12	10	12	12	15
		WGT. PER FT.-LB.	7½	6½	9¾	9¾	12¼	11¼	15	13¼	18	15	21	20½	21	20½	22	25	27½	33

Tie rods should be supplied on slope roofs in accordance with standard structural steel design.

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